APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
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	EXAMINER
	ALAM,H

ART UNIT	PAPER NUMBER
2771	3

DATE MAILED: 01/30/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Please see attachment

Office Action Summary

☐ Responsive to communication(s) filed on _____ .

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire ____3____ month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-20*_____ is/are pending in the application.

     Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-20*_____ is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

     ☐ All ☐ Some* ☐ None   of the CERTIFIED copies of the priority documents have been

        ☐ received.

        ☐ received in Application No. (Series Code/Serial Number) _____ .

        ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

     *Certified copies not received: _____ .

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). ____2____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Detailed Action

1.   Claims 1-20 are pending in this action.

Drawings

2.   This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

3.   Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4.   The phrase, "a variety of types of input data components", as used in claim 1, line and claim 15, line 1-2, is unclear as to the meaning attached to "data components" and the distinction between the "data sets" and the "data components." The data components are essentially the parts of software programs from a plurality of different software applications and the claimed invention is believed to be integrating the different software applications by creating a hierarchical index for all data components.

Reference is made to page 6, line 10-13 of the Applicants' Disclosure. It is important to

distinctly point out the nature of "data components" and reflect a software development

environment.

The remaining claims, not specifically mentioned, are rejected for incorporating

the same errors of their respective base claims by dependency.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-2, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U. S. Patent No. 5,606,661 issued to Wear et al. ("Wear") in view of U. S. Patent

No. 5,123,103 issued to Ohtaki et al. ("Ohtaki").

7.   With respect to claim 1, Wear discloses a software development method

(Abstract; col. 1, line 12; col. 1, line 18-21), teaches objects (col. 1, line 26-28) that are

equivalent to the claimed data components, said objects are stored in a container

object that contains a pointer to each newly instantiated objects (col. 2, line 6-10). The

container uses a hierarchy of objects (col. 3, line 16-21) which are instantiated. One of

a plurality of test functions can be performed on an object through a test class object by

using a linked list structure (col. 3, line 50 to col. 4, line 48). In other words, an object in the hierarchy of the object can be accessed based upon a chosen test function. Thus a testing function generates a code that can be entered by a user to uniquely identify an object or a data component in the hierarchy (col. 4, line 37-48).

Ohtaki teaches a software development system including a hierarchy of related data components (col. 3, line 20-47) each data component with a link (Fig. 7, 69) and an index (Fig. 7, 71-75) associated with it wherein the indices reside at different hierarchical levels.

Fig. 7 of Ohtaki provides the structure as claimed except Ohtaki does not explicitly indicate the instantiation of indices as claimed. Wear teaches the instantiation because in Wear, a user is allowed to generates a testing code that uniquely identifies an object or a data component in the hierarchy (col. 4, line 37-48).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Ohtaki and Wear because the combination would have improved the efficiency of a software development system, more specifically, the test class feature of Wear would have provided a better data component validation procedure so that a testing can be easily conducted among the data components of the system (col. 1, line 24-36; Wear).

8.   As to claim 2, Ohtaki teaches the expression type 69 in Fig. 7 which is equivalent to the claimed primary relationship.

9.   Claims 3-14, and 16-20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Wear in view of Ohtaki, and further in view of the

publication,"Towards a Framework for Software Measurement Validation", Fenton et

al., IEEE Transactions on Software Engineering, vol. 21, No. 12, pages 929-944,

December, 1995, ("Fenton").

10.   With reference to claim 3-7, Wear and Ohtaki do not explicitly indicate the

measurement types/units.

Fenton details the measurement units, such as "line of code" (claim 3), "hours

per line of code" (claim 5), on page 934, col. 1-2. As to claims 4, 6 and 7, the

expression type 69 of Ohtaki, Fig. 7 is expanded as new data components are added

and a request is placed (col. 3, line 20-47; Fig. 7, elements 69 and 71-75).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to combine Ohtaki and Wear and Fenton because the inclusion of

various measurements units as taught by Fenton would have improved the versatility of

the combined system.

11.   With respect to claims 8-10, comparing two instantiated indexes (claim 8),

comparing by a primary relationship (claim 9), and comparing by two different defined

secondary relationships, Ohtaki teaches a plurality of expression type relationships

(Fig. 7, 69) associated with a data component wherein the relationships are

hierarchically organized by the degree of generalization and thus teaches a plurality of

relationships levels including a secondary relationship (col. 3, line 20-47).

12.   As to claim 11, the secondary relationships are definable because the

generalization links as taught by Ohtaki are definable (col. 3, line 20-47).

13.   Claim 12 is rejected for the same reasons as applied to claims 8-11

hereinabove.

14.   As to claim 13, it would have been obvious to a person of ordinary skill in the art

at the time the invention was made to calibrate a compared data set to its

corresponding data set to improve the accuracy of the measurement for the data

components. For the purpose of measurements, calibrating is equivalent to comparison

except in case of calibrating, a benchmark itself is measured first for determining its

dimensions.

15.   As to claim 14, the index as taught by Ohtaki is applied to an output device to

form dictionaries (see abstract).

16.   Claims 15 is essentially the same as claim 1, except it recites a method of

providing a standardized hierarchical index rather than a universal data measurement

system as recited in claim 1. The steps as recited in the body of claim 15 are the same

as those of claim 1. Therefore, claim 15 is rejected for the same reasons as applied to

claim 1 hereinabove.

17.   Claim 16 is rejected for the reasons set forth in claim 10 hereinabove.

18. Claim 17 is rejected for the reasons set forth in claims 10 and 3 hereinabove.

19. Claim 18 is rejected for the reasons set forth in claims 10 and 4 hereinabove.

20. Claim 19 is rejected for the reasons set forth in claims 10 and 6 hereinabove.

21. Claim 20 is rejected for the reasons set forth in claims 10 and 5 hereinabove.

22. Claims 1-20 have been rejected under 35 U.S.C. 103(a).

Prior Art

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) U. S. Patent No. 5,159,687 issued to Richburg

2) U. S. Patent No. 5,261,100 issued to Fujinami et al.

3) U. S. Patent No. 5,526,522 issued to Takeuchi

4) U. S. Patent No. 5,699,310 issued to Garloff et al.

Contact Information

24. Direct inquiries concerning this communication should be directed to Hosain Alam whose telephone number is (703) 308-6662. The examiner can normally be reached on Monday - Thursday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black, can be reached on (703)305-9707.

Art Unit: 2771

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 305-9724 or (703) 308-6606 (for informal or draft communications, please
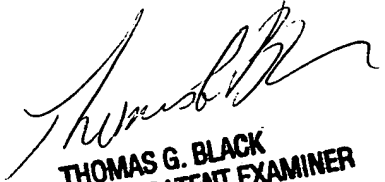
label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington. VA., Sixth Floor (Receptionist).

Inquiries of a general nature or relating to the status of this application should be

directed to the Group receptionist whose telephone number is (703) 305-9600.

H.A.
January 15, 1998

THOMAS G. BLACK
SUPERVISORY PATENT EXAMINER
GROUP 2700